



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5 CHICAGO REGIONAL LABORATORY  
536 SOUTH CLARK STREET  
CHICAGO, ILLINOIS 60605

**Date:** 8/20/2010  
**Subject:** Review of Region 5 Data for R06 Deep Water Grand Isle  
**From:** David Schroeder *D.S. 8-20-10*  
Region 5 Chicago Regional Laboratory  
**To:** Region 6, US EPA  
10625 Fallstone Road  
Houston, TX 77099

The data being transmitted under this cover memo successfully passed CRL's internal data review procedures as documented in our current Quality Management Plan (QMP) and appropriate Standard Operating Procedures (SOPs). Please be aware that CRL does not perform data validation which is based on your data quality objectives. This function must be performed independently of the laboratory generating the data.

Results in this report represent only the samples analyzed.

Please have the U.S. EPA Project Manager/Officer call the CRL Sample Coordinator at (312) 353-7444 for any comments or questions.

**Attached are Results for: R06 Deep Water Grand Isle**

\_\_\_\_\_  
Data Management Coordinator and Date Received

Date Transmitted: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Analyses included in this report:**

RAM-DOSS



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

**Reported:**  
Aug-20-10 16:43

**ANALYSIS CASE NARRATIVE**  
**Analyst: David Schroeder (312) 353-3100**

**General Information**

Sixteen replicates of T008-1332-100818-SW-03-1 were received by the Chicago Regional Laboratory for dioctyl sulfosuccinate (DOSS) analysis August 19, 2010. Matrix Spike and Matrix Spike Duplicate analysis were performed on T008-1332-100818-SW-03-1C and T008-1332-100818-SW-03-1D. The samples were received at or less than 6°C.

**Sample Analysis and Results**

Analysis of dioctyl sulfosuccinate in water by LC/MS/MS was carried out using CRL Region 5 Regional Analytical Method for Dioctyl Sulfosuccinate (RAM-DOSS, CAS 577-11-7) in Sea Water by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). None of the sample replicate results were above the DOSS detection verification level (6 ppb) or the reporting level (20 ppb).

Many of the samples were observed with a notable yellow color. Some of the samples contained fine particulate that traveled down through the sample after transfer. One sample had a flat black particle that floated. The filter sample preparations did not contain visible particulates.

Upon special request the sample and replicates were analyzed using a modified calibration. The calibration varied from the requirement of the RAM-DOSS procedure and quality control limits. The low level concentration estimation data is detailed in 100819\_DOSSLOW 5 POINTQUADESTIMATED.qld, which is the Waters MassLynx quantitation file generated for this workorder. These low values are estimated (J) as well as U, as they are under the reporting limit.

DOSS is surface active. The surface activity results in DOSS adhering to many materials. Sampling techniques that expose samples to materials other than the sample container may reduce DOSS concentration in samples. Sampling techniques such as peristaltic pumping expose the sample to large surface areas compared to sample volume. DOSS association with peristaltic tubing materials likely result in bias low DOSS concentrations in laboratory samples.

**Quality Control**



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

**Reported:**  
Aug-20-10 16:43

The sample resulted in low DOSS surrogate recovery, T008-1332-100818-SW-03-1 replicates E, F, and H-P DOSS surrogate recoveries were below the 50% quality control limit and flagged estimate (J). Replicates B and G (B100875-DUP1 and B100875-DUP4) were with the quality control limits. B100875-MSD1DOSS surrogate recovery was below the quality control limit and flagged estimated (J).

DOSS recovery from the matrix spike and matrix spike duplicate samples were below the 50% quality limit and flagged estimated (J). The low DOSS recovery from the matrix spike samples were similar to the low DOSS surrogate recoveries, indicating notable sample effect on DOSS quantitation.

All quality control criteria not mentioned met acceptance limits stated in the method.

The Laboratory information system generates sample names that cannot be easily be modified:

**Field Sample Identification**

**CRL Sample Identification**

T008-1332-100818-SW-03-1A	1008037-01
T008-1332-100818-SW-03-1B	B100875-DUP1
T008-1332-100818-SW-03-1C	B100875-MS1
T008-1332-100818-SW-03-1D	B100875-MSD1
T008-1332-100818-SW-03-1E	B100875-DUP2
T008-1332-100818-SW-03-1F	B100875-DUP3
T008-1332-100818-SW-03-1G	B100875-DUP4
T008-1332-100818-SW-03-1H	B100875-DUP5
T008-1332-100818-SW-03-1I	B100875-DUP6
T008-1332-100818-SW-03-1J	B100875-DUP7
T008-1332-100818-SW-03-1K	B100875-DUP8
T008-1332-100818-SW-03-1L	B100875-DUP9
T008-1332-100818-SW-03-1M	B100875-DUP10
T008-1332-100818-SW-03-1N	B100875-DUP11
T008-1332-100818-SW-03-1O	B100875-DUP12
T008-1332-100818-SW-03-1P	B100875-DUP13



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T008-1332-100818-SW-03-1	1008037-01	Water	Aug-18-10 09:35	Aug-19-10 01:20


**Analysis by LC MS MS**

**US EPA Region 5 Chicago Regional Laboratory**

T008-1332-100818-SW-03-1 (1008037-01) Water Sampled: Aug-18-10 09:35 Received: Aug-19-10 01:20

Analyte	Result	Flags / Qualifiers	MDL	Limit	Units	Dilution	Batch	Prepared	Analyzed
dioctyl sulfosuccinate	2.49	J, U		19.7	ug/L	1	B100875	Aug-19-10	Aug-19-10

Surrogate: DOSS-D34 252 144 % 50-150 " " "

  
David Schroeder, Chemist



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

#### Blank (B100875-BLK1)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	0.296	J, U		19.8	ug/L						

Surrogate: DOSS-D34 280 " 200.0 140 50-150

#### Blank (B100875-BLK2)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	0.121	J, U		20.1	ug/L						

Surrogate: DOSS-D34 177 " 202.0 87.8 50-150

#### LCS (B100875-BS1)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	128			19.5	ug/L	200.0		64.0	50-150		

Surrogate: DOSS-D34 169 " 200.0 84.5 50-150



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

#### LCS (B100875-BS2)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	151			20.2	ug/L	202.0		74.8 50-150		
Surrogate: DOSS-D34	143				"	202.0		70.6 50-150		

#### LCS Dup (B100875-BSD1)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	177			20.5	ug/L	200.0		88.6 50-150	32.1	30
Surrogate: DOSS-D34	256				"	200.0		128 50-150		

#### LCS Dup (B100875-BSD2)

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	149			20.2	ug/L	198.0		75.4 50-150	1.19	30
Surrogate: DOSS-D34	142				"	198.0		71.7 50-150		

#### Duplicate (B100875-DUP1)

Source: 1008037-01

Prepared & Analyzed: Aug-19-10



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	0.595	J, U		19.2	ug/L		2.49			123	200

Surrogate: DOSS-D34 137 " 168.8 81.3 50-150

### Duplicate (B100875-DUP2)

Source: 1008037-01

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	3.00	J, U		19.9	ug/L		2.49			18.7	200

Surrogate: DOSS-D34 74.1 J " 174.7 42.4 50-150

### Duplicate (B100875-DUP3)

Source: 1008037-01

Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	2.86	J, U		20.0	ug/L		2.49			14.0	200

Surrogate: DOSS-D34 70.1 J " 173.9 40.3 50-150

### Duplicate (B100875-DUP4)

Source: 1008037-01

Prepared & Analyzed: Aug-19-10





# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	1.63	J, U		19.7	ug/L		2.49			41.3	200

Surrogate: DOSS-D34 114 " 172.4 66.0 50-150

### Duplicate (B100875-DUP5) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	0.872	J, U		19.8	ug/L		2.49			96.1	200

Surrogate: DOSS-D34 83.4 J " 172.4 48.3 50-150

### Duplicate (B100875-DUP6) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	0.518	J, U		19.9	ug/L		2.49			131	200

Surrogate: DOSS-D34 85.2 J " 173.9 49.0 50-150

### Duplicate (B100875-DUP7) Source: 1008037-01 Prepared & Analyzed: Aug-19-10





# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

*Dup 7*  
Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	0.357	J, U		19.8	ug/L		2.49			150	200

Surrogate: DOSS-D34 72.6 J " 172.4 42.1 50-150

Duplicate (B100875-DUP8) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	0.644	J, U		19.5	ug/L		2.49			118	200

Surrogate: DOSS-D34 83.3 J " 170.9 48.7 50-150

Duplicate (B100875-DUP9) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	0.474	J, U		19.7	ug/L		2.49			136	200

Surrogate: DOSS-D34 76.1 J " 174.7 43.6 50-150

Duplicate (B100875-DUPA) Source: 1008037-01 Prepared & Analyzed: Aug-19-10



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	0.217	J, U		19.7	ug/L		2.49		168	200

Surrogate: DOSS-D34 72.6 J " 172.4 42.1 50-150

### Duplicate (B100875-DUPB) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	1.00	J, U		19.7	ug/L		2.49		85.1	200

Surrogate: DOSS-D34 72.5 J " 170.9 42.4 50-150

### Duplicate (B100875-DUPC) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
dioctyl sulfosuccinate	1.19	J, U		19.5	ug/L		2.49		70.5	200

Surrogate: DOSS-D34 78.3 J " 173.2 45.2 50-150

### Duplicate (B100875-DUPD) Source: 1008037-01 Prepared & Analyzed: Aug-19-10



# Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

Reported:  
Aug-20-10 16:43

## Analysis by LC MS MS - Quality Control US EPA Region 5 Chicago Regional Laboratory

### Batch B100875 - \*\*\* DEFAULT PREP \*\*\*

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	1.09	J, U		20.3	ug/L		2.49		77.8	200

Surrogate: DOSS-D34 73.1 J " 172.4 42.4 50-150

### Matrix Spike (B100875-MS1) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	72.4	J		19.8	ug/L	172.4	2.49	40.5	50-150	

Surrogate: DOSS-D34 96.2 " 172.4 55.8 50-150

### Matrix Spike Dup (B100875-MSD1) Source: 1008037-01 Prepared & Analyzed: Aug-19-10

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
diethyl sulfosuccinate	73.7	J		19.5	ug/L	169.5	2.49	42.0	50-150	1.79 30

Surrogate: DOSS-D34 68.7 J " 169.5 40.6 50-150



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

**Reported:**  
Aug-20-10 16:43



Environmental Protection Agency Region 5  
**Chicago Regional Laboratory**

536 South Clark Street, Chicago, IL 60605  
Phone:(312)353-8370 Fax:(312)886-2591

Region 6, US EPA  
10625 Fallstone Road  
Houston TX, 77099

Project: R06 Deep Water Grand Isle  
Project Number: T0033-100403-20100818-004  
Project Manager: Kristie Warr

**Reported:**  
Aug-20-10 16:43

**Notes and Definitions**

J The identification of the analyte is acceptable; the reported value is an estimate.  
U Not Detected  
NR Not Reported

## Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Default Report (not modified) VERSION 6.05:2003 Special Units: (ug/L)
1008037-01	RAM-DOSS	(Water)	Analysis Date before Prep Date
B100875-BLK1	RAM-DOSS		Analysis Date before Prep Date
B100875-BLK2	RAM-DOSS		Analysis Date before Prep Date
B100875-BS1	RAM-DOSS		Analysis Date before Prep Date
B100875-BSD1	RAM-DOSS		Analysis Date before Prep Date
B100875-BSD1	RAM-DOSS	dioctyl sulfosuccinate	Exceeds RPD control limit
B100875-DUP1	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP2	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP2	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP3	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP3	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP4	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP5	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP5	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP6	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP6	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP7	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP7	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP8	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP8	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUP9	RAM-DOSS		Analysis Date before Prep Date
B100875-DUP9	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUPA	RAM-DOSS		Analysis Date before Prep Date
B100875-DUPA	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUPB	RAM-DOSS		Analysis Date before Prep Date
B100875-DUPB	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUPC	RAM-DOSS		Analysis Date before Prep Date
B100875-DUPC	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-DUPD	RAM-DOSS		Analysis Date before Prep Date
B100875-DUPD	RAM-DOSS	DOSS-D34	Exceeds lower control limit
B100875-MS1	RAM-DOSS		Analysis Date before Prep Date
B100875-MS1	RAM-DOSS	dioctyl sulfosuccinate	Exceeds lower control limit
B100875-MSD1	RAM-DOSS		Analysis Date before Prep Date
B100875-MSD1	RAM-DOSS	dioctyl sulfosuccinate	Exceeds lower control limit
B100875-MSD1	RAM-DOSS	DOSS-D34	Exceeds lower control limit